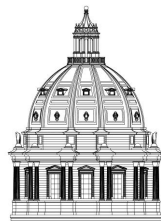


Minnesota State Capitol Preservation Commission Meeting

March 27, 2015



**Minnesota State Capitol
Restoration Project**

Architectural Integrity. Building
Functionality. Life Safety.

Meeting Agenda

- Update to Capitol Preservation Commission
 - Water intrusion and settlement findings.
 - Review out of scope elements and estimated costs.
 - Recommendations from the Arts Subcommittee.
- Adjourn

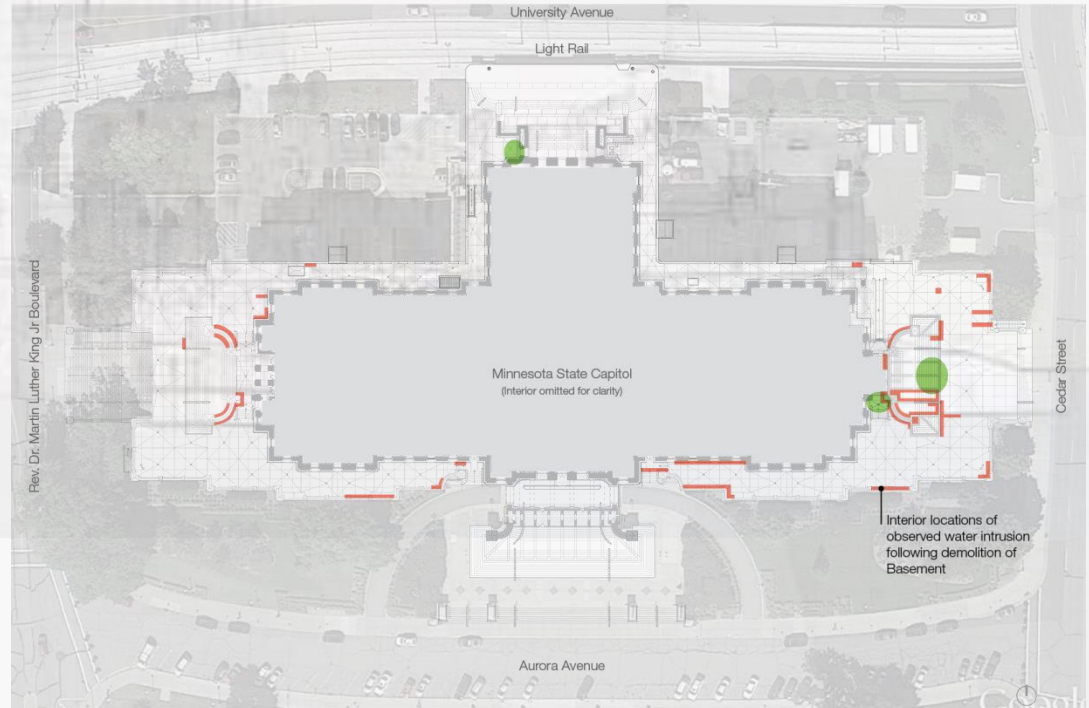
Water Intrusion and Settlement – \$17.261 million

- Extensive water intrusion became evident as demolition work progressed in basement during “wet” spring of 2014.
- Investigation was initiated, including removal of stair treads, stone elements, and sections of the plaza which determined the extent of the deterioration and repairs needed.

Summary of Project Origination

- Three (3) primary leak areas identified.
- Five (5) areas of granite settlement.
- One (1) area of light pole repairs needed.

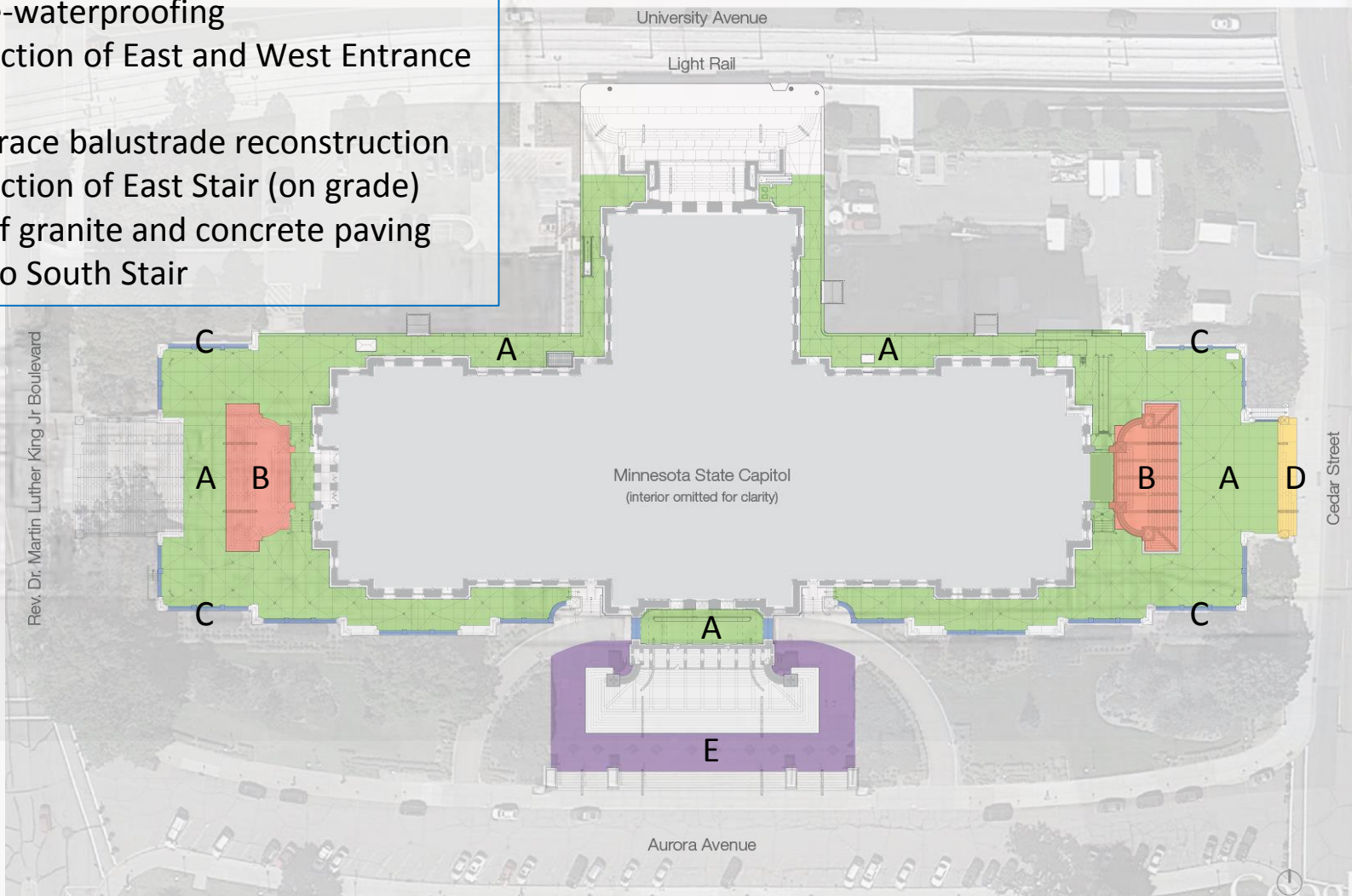
As demolition in the basement was completed, there was evidence of widespread leaking. A more extensive investigation was initiated, which revealed significant deterioration on the stairs, plaza and terrace.



Scope of Recommended Repairs

Work Scope Key

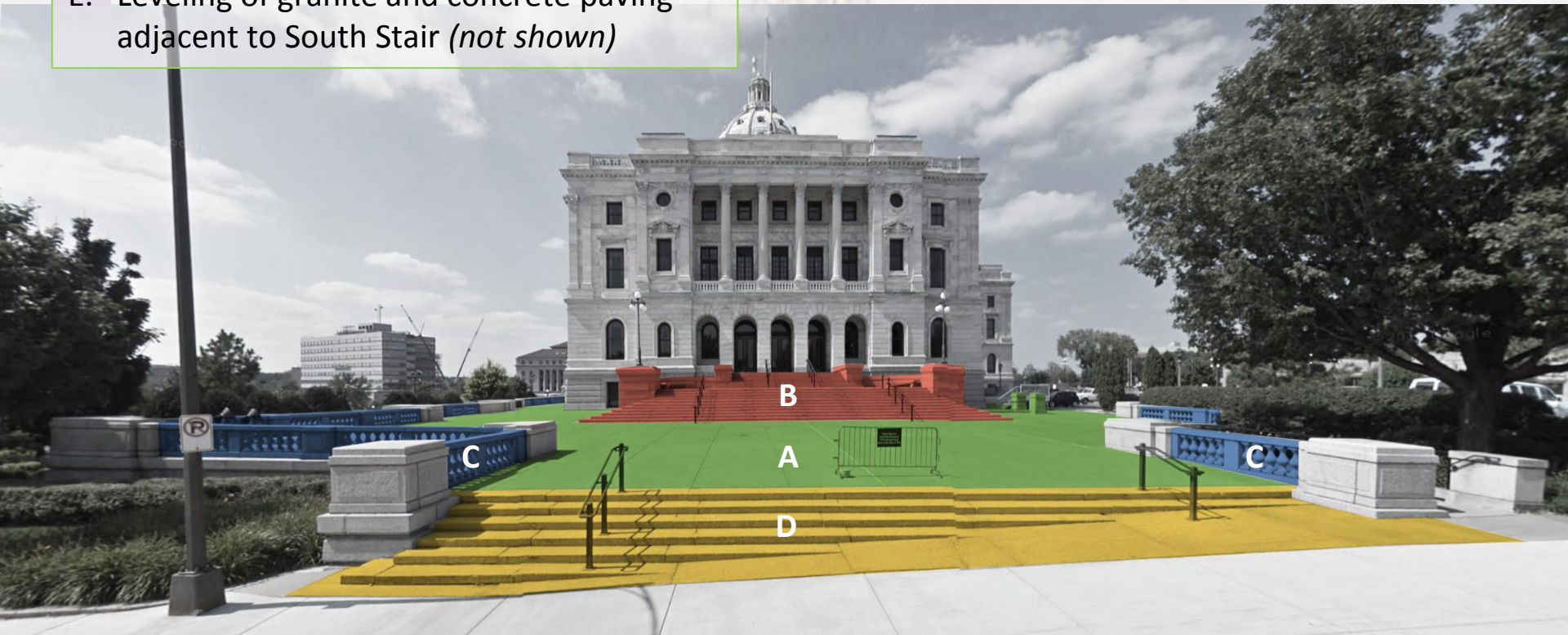
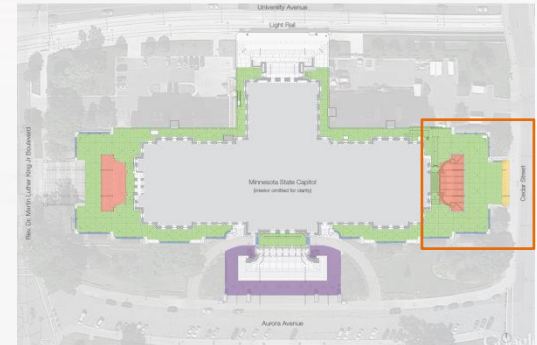
- A. Terrace re-waterproofing
- B. Reconstruction of East and West Entrance Stairs
- C. Select Terrace balustrade reconstruction
- D. Reconstruction of East Stair (on grade)
- E. Leveling of granite and concrete paving adjacent to South Stair



Scope of Recommended Repairs

Work Scope Key

- A. Terrace re-waterproofing
- B. Reconstruction of East and West Entrance Stairs
- C. Select Terrace balustrade reconstruction
- D. Reconstruction of East Stair (on grade)
- E. Leveling of granite and concrete paving adjacent to South Stair (*not shown*)

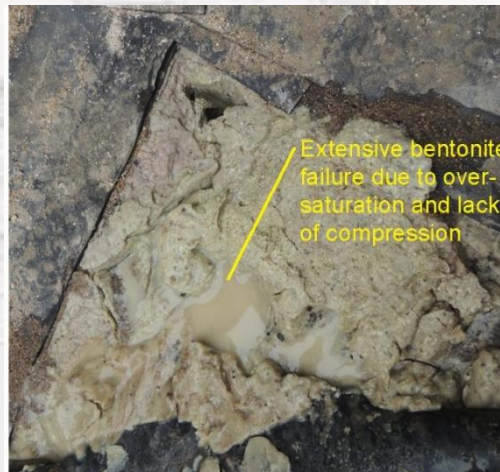


Terrace Re-Waterproofing

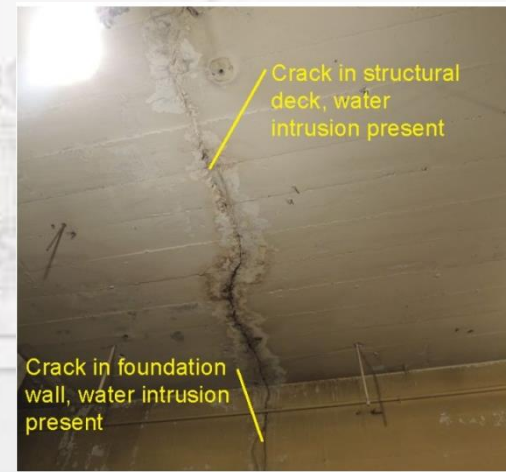
- **Replacement Terrace Waterproofing System (existing is primarily bentonite and butyl system)**
 - Remove existing concrete wear slab, rigid insulation, drainage composite, and waterproofing.
 - Existing plaza drain locations to remain (repair/replacement drain bodies as required).
 - Install new hot fluid-applied waterproofing system, drainage composite, rigid insulation, and concrete wear slab.



Selective Demolition of Concrete Wear Slab



Selective Demolition of Concrete Wear Slab



Interior View of Structural Slab at Basement East Wall

East and West Entrance Stair Repair

Work Scope

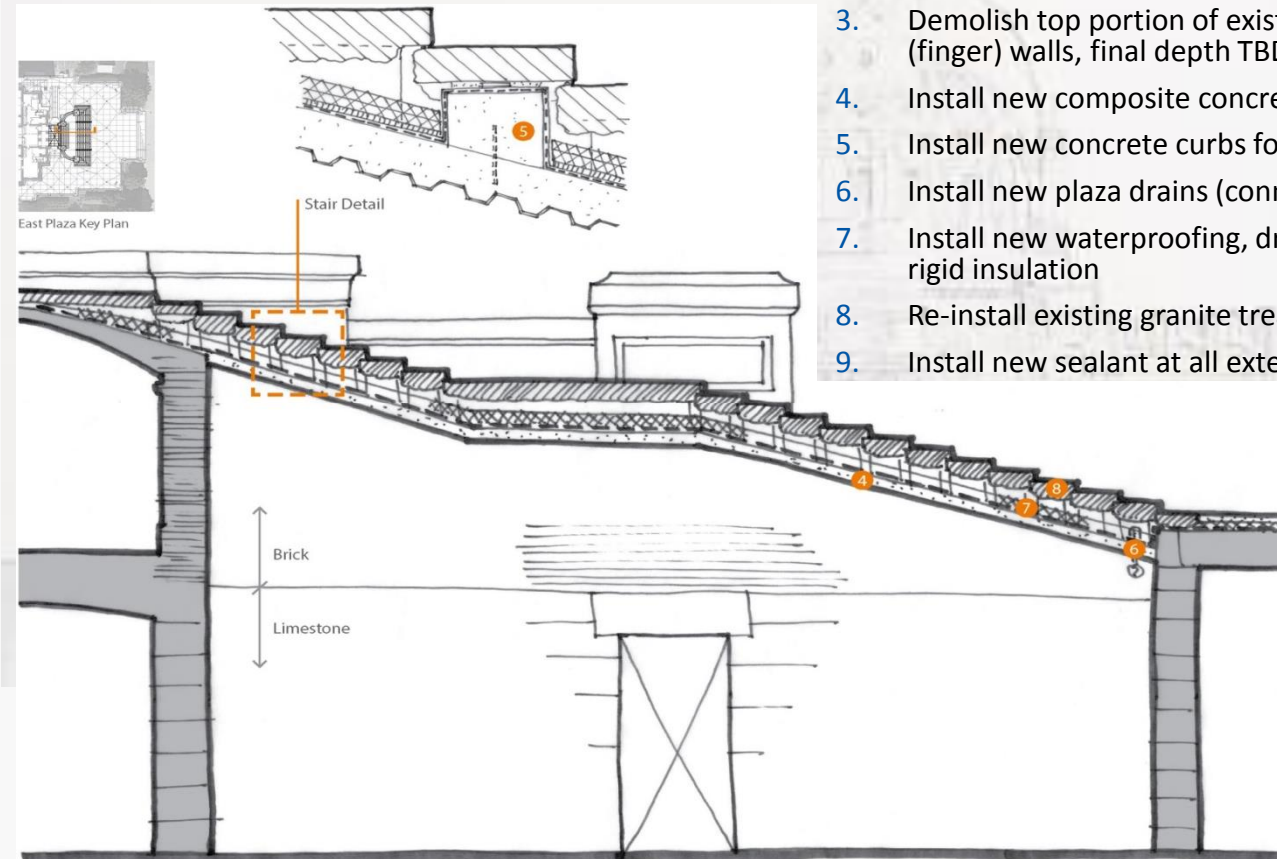
1. Remove existing granite treads, catalog, and store for re-installation
2. Demolish existing waterproofing over plywood deck over metal studs
3. Demolish top portion of existing masonry support (finger) walls, final depth TBD
4. Install new composite concrete deck
5. Install new concrete curbs for granite tread support
6. Install new plaza drains (connect to existing piping)
7. Install new waterproofing, drainage composite, and rigid insulation
8. Re-install existing granite treads on shims and grout
9. Install new sealant at all exterior stone joints



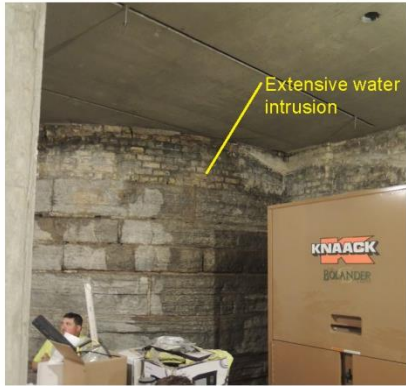
Interior View below East Entrance Stair



Interior View below West Entrance Stair



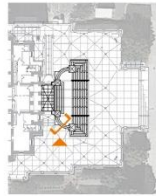
Repairs at Curved Walls and Pilasters



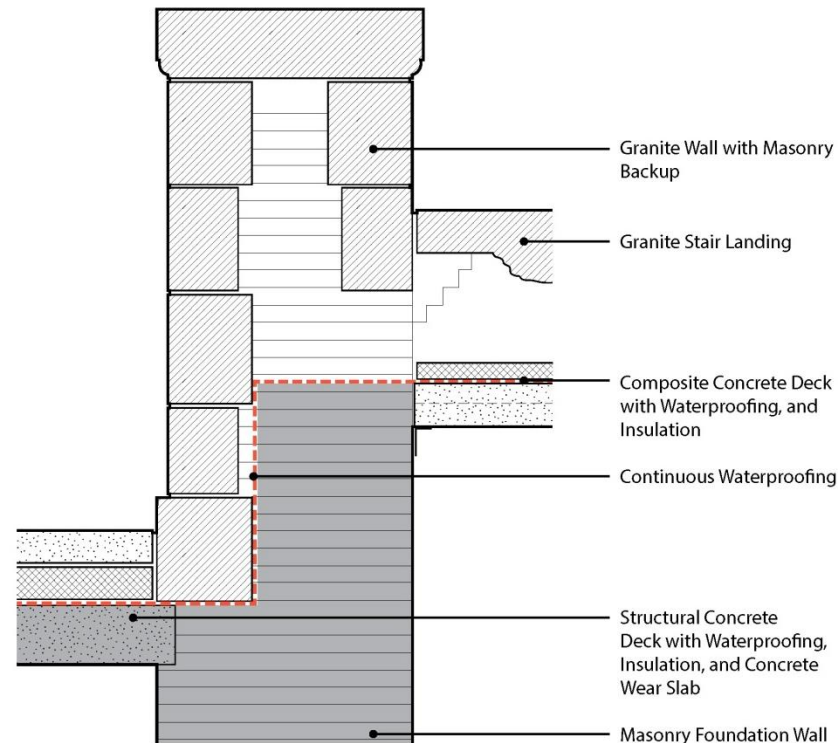
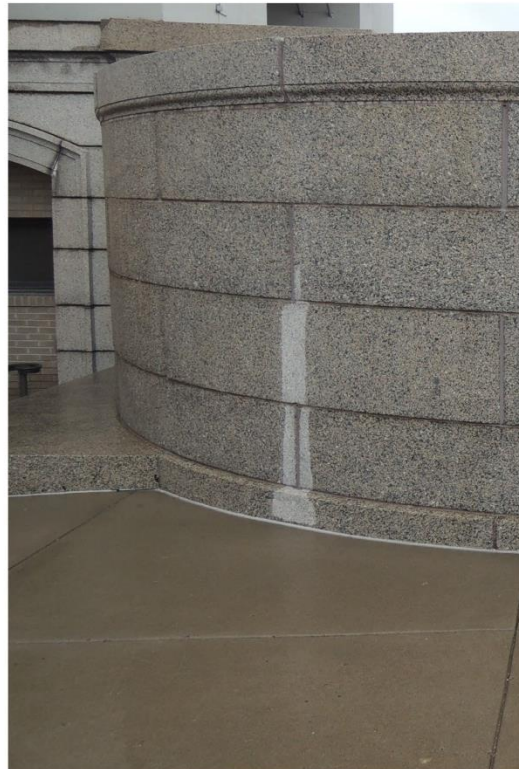
Interior View below East Entrance Stone Curved Wall



Sealant Detail at East Entrance Stone Curved Wall



East Plaza Key Plan



Light Poles, Sealant, Settlement Repairs



North Stair Light Pole



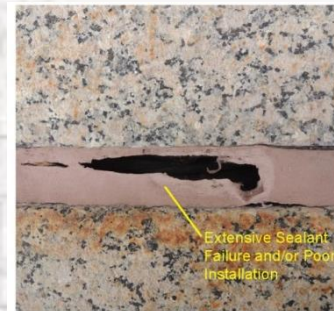
Granite Paving Settlement at East Stair

Light Poles

1. Remove light poles and bases (8 total).
2. Clean and prepare light pole assemblies in shop for new high performance paint. Provide new high performance paint in shop.
3. Re-lamp fixtures with new LED lighting.
4. Repair corroded or missing bolts and nuts for re-installation.
5. Seal conduit penetration through stone cap.
6. Reinstall light pole assemblies, set light pole bases in grout bed, with perimeter sealant at base.

Granite Paving Settlement

1. Allow vehicular parking to occur at areas adjacent to the South Stair.
2. Remove existing paving, salvage granite for re-installation.
3. Engineer soils to accommodate vehicular loads.
4. Reinstall granite paving, install new concrete paving.



Sealant Detail at East Entrance Stair



Exterior View of East Entrance Stair

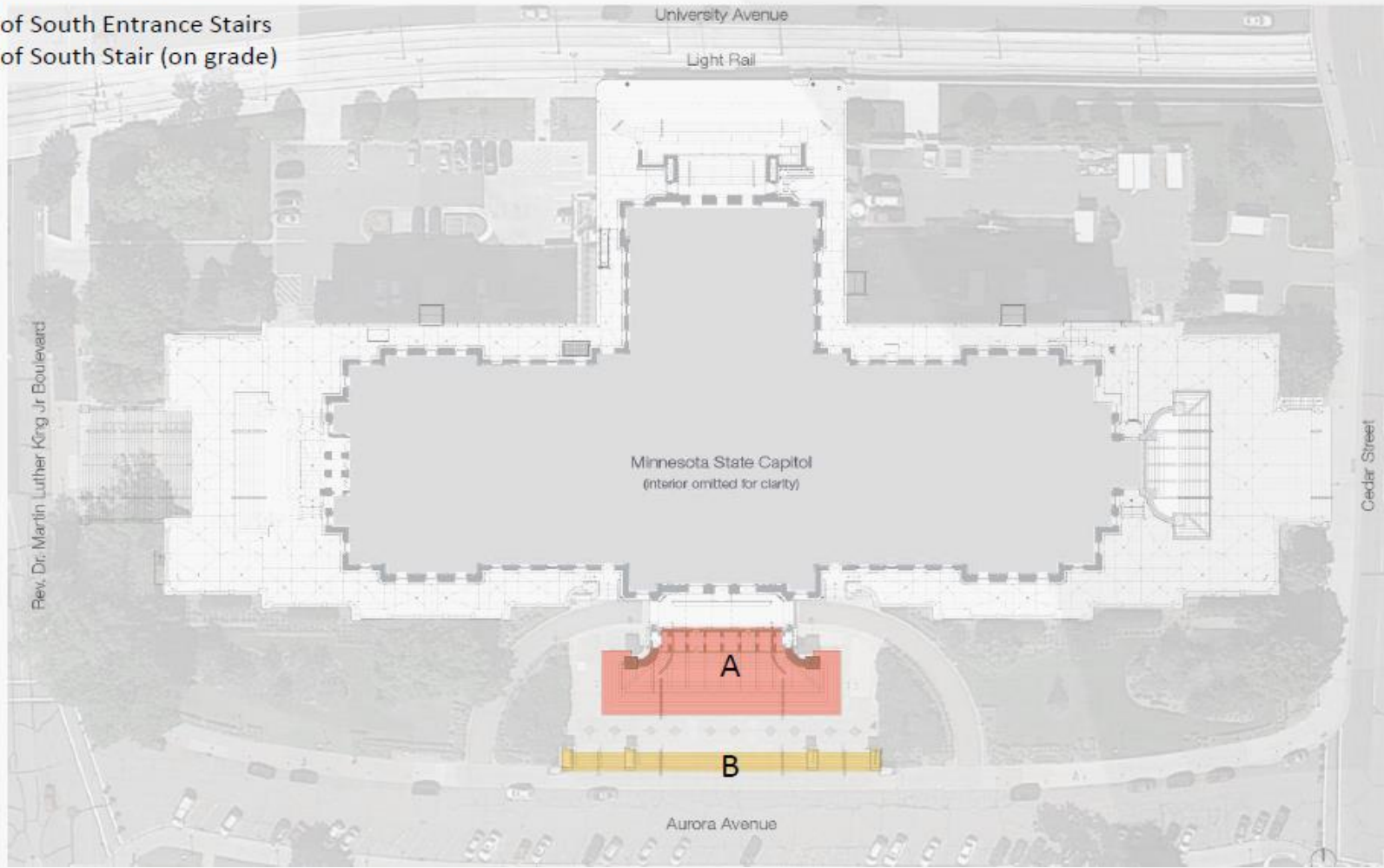
Sealant

1. Reseal all

South Step Repairs - \$2.793 million

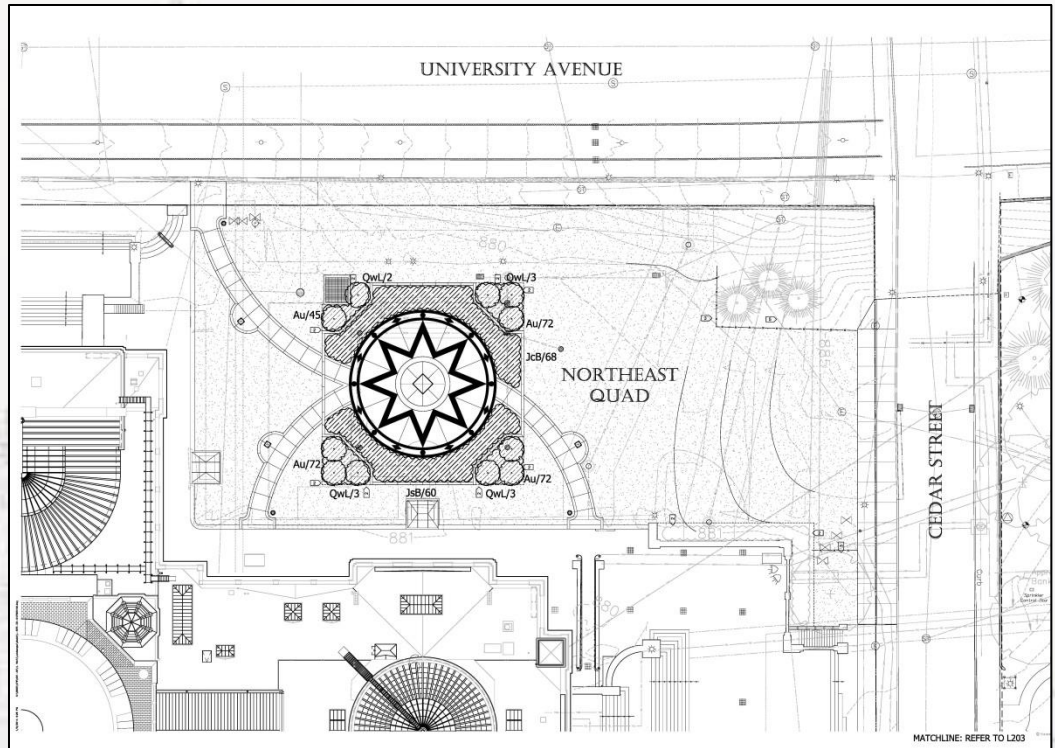
Work Scope Key

- A. Reconstruction of South Entrance Stairs
- B. Reconstruction of South Stair (on grade)



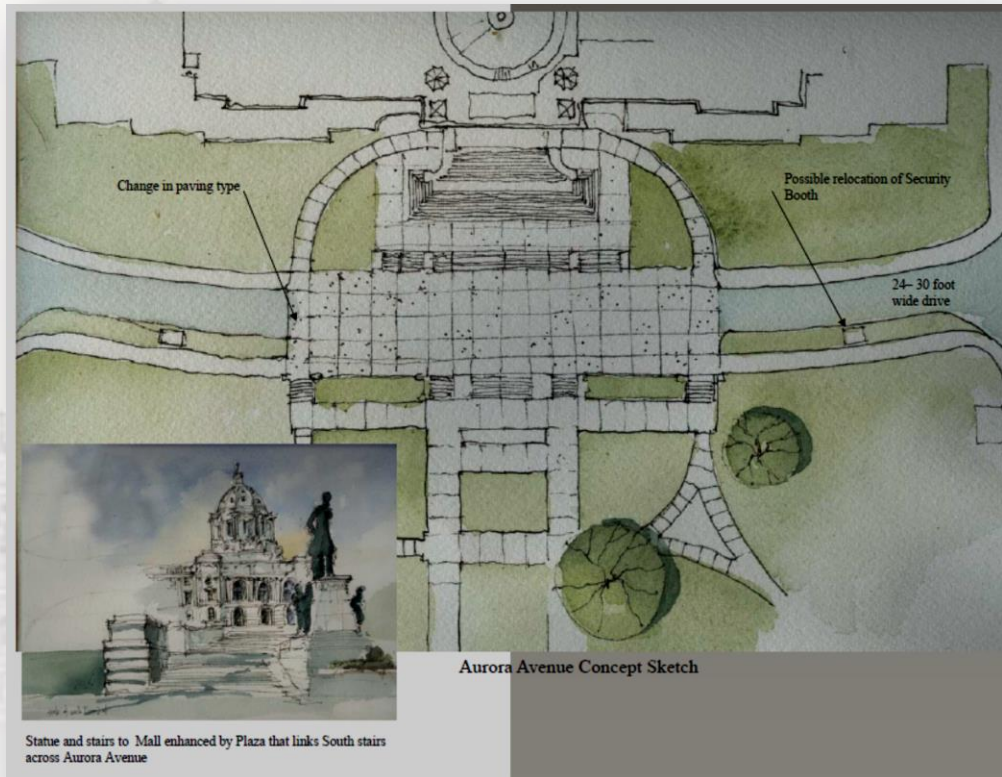
Lot O - Enhanced Landscaping - \$279,117

- Returned to Green Space
- Plaza Paving Material
- Walks to link North Entry to East Entry
- Landscape buffer between LRT and Capitol



Aurora Avenue Modifications - \$2.413 million

- Reduce parking
- Enhanced landscaping
- Enhanced gathering function
- Improved security
- Reduced width
- Create plaza



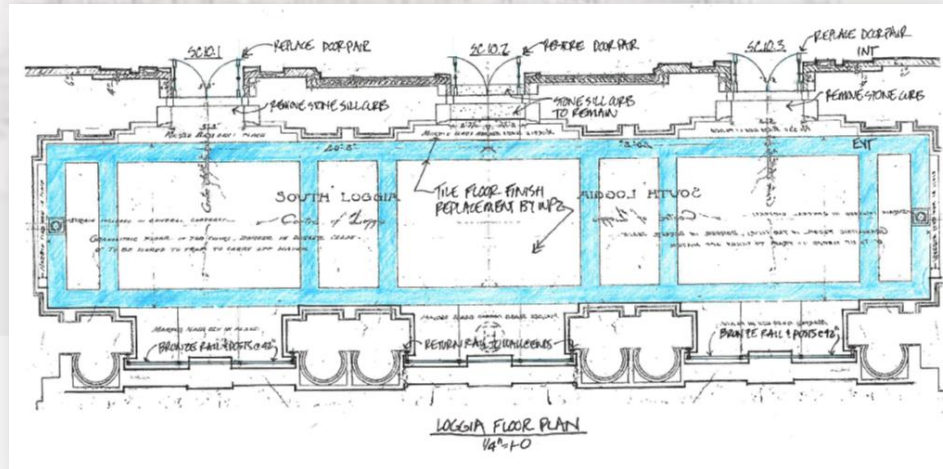
Reopening South Loggia - \$400,003

The South Loggia surface is being repaired as part of the Capitol restoration project.

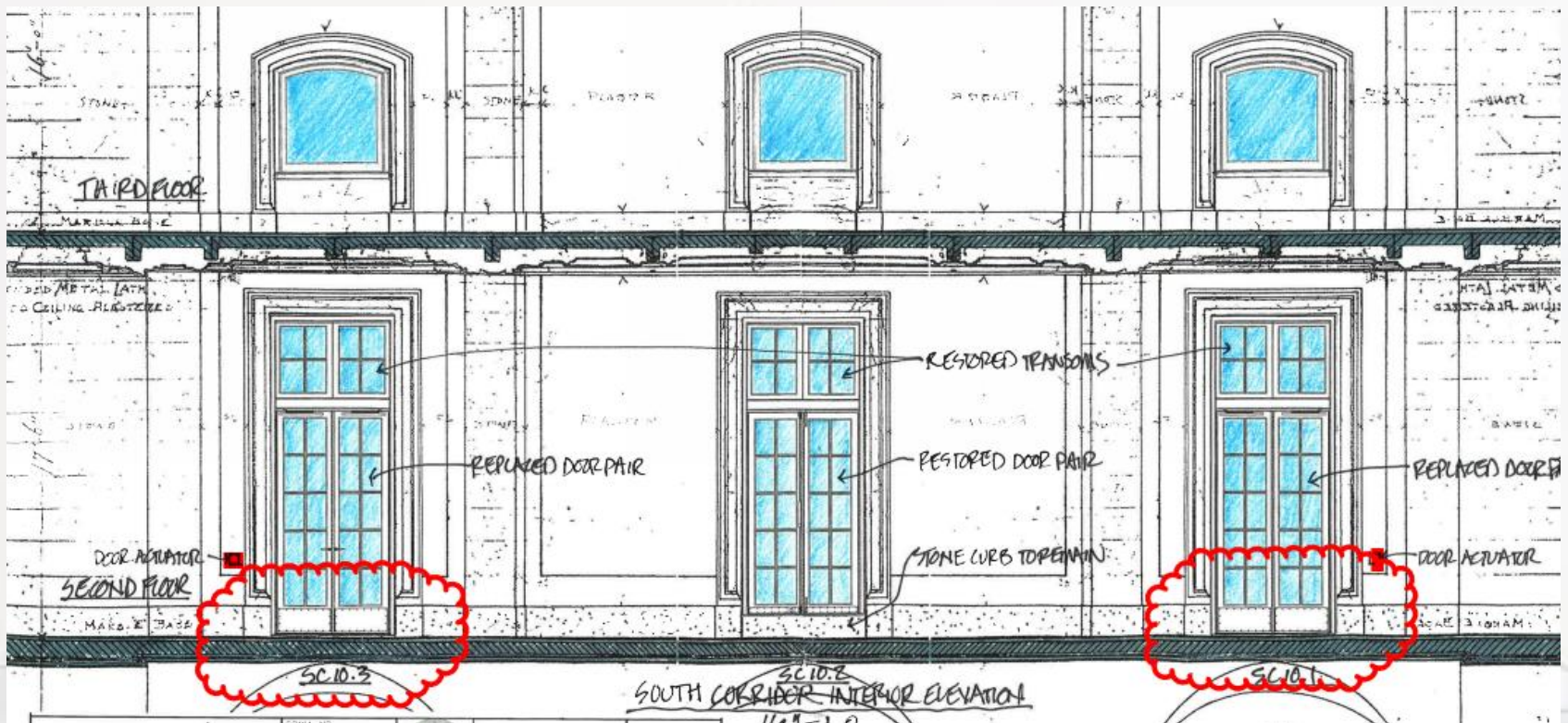
What is not included - Items needed to provide access that meets code.

The following items would need to be considered and would require additions or changes to the current scope.

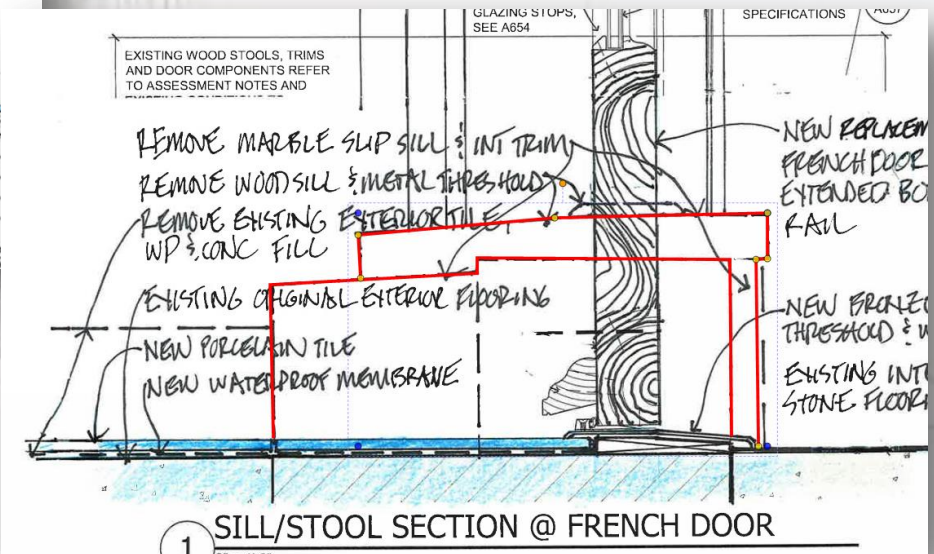
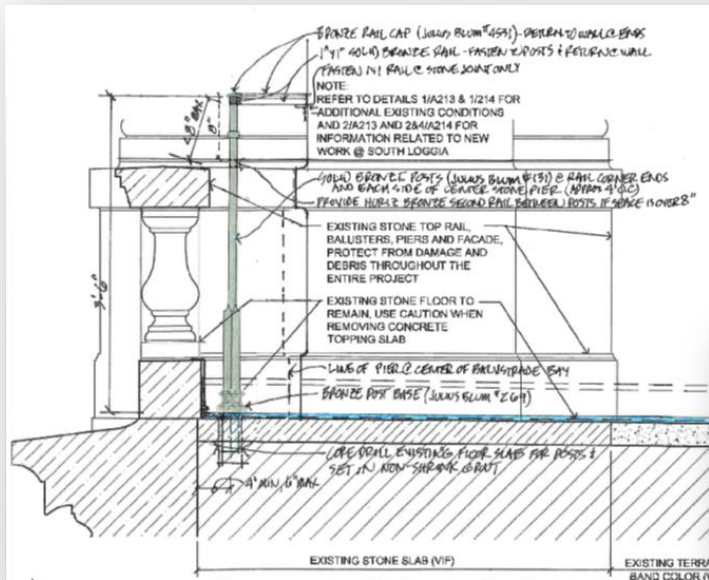
- New French Doors would replace existing restored ones.
- New hardware systems would replace restored/replica hardware.
- New railing would be added to meet code requirements for railing heights.
- Existing construction.
- Barrier-free access.
- Code implications.
- Impacts on historic fabric.
- Hardware requirements.
- Security considerations.
- Policy issues regarding use.



Reopening South Loggia



Reopening South Loggia

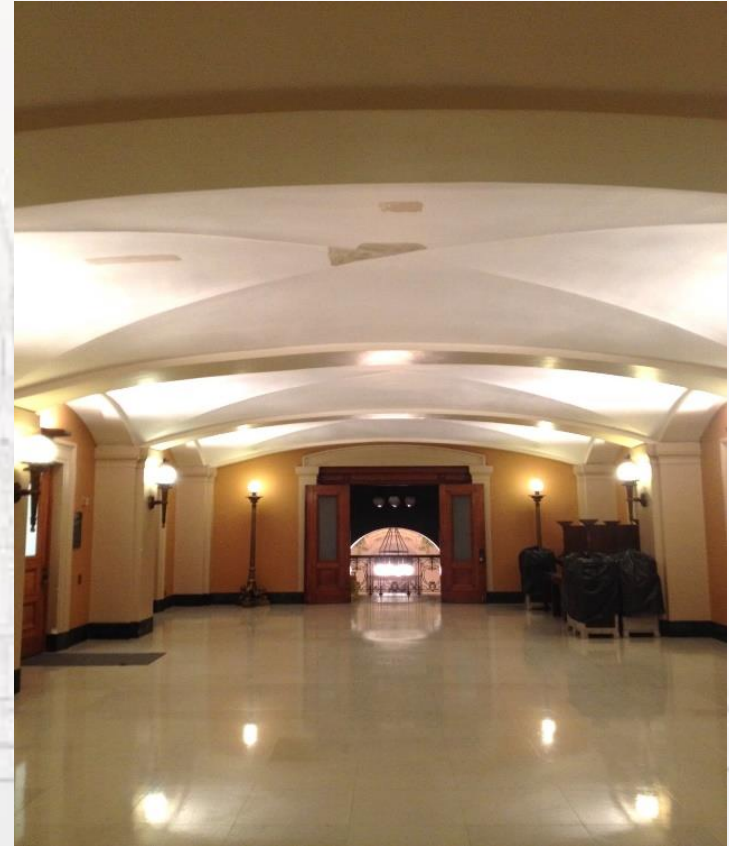


Ground Floor, North Hall

Decorative Painting - \$142,767



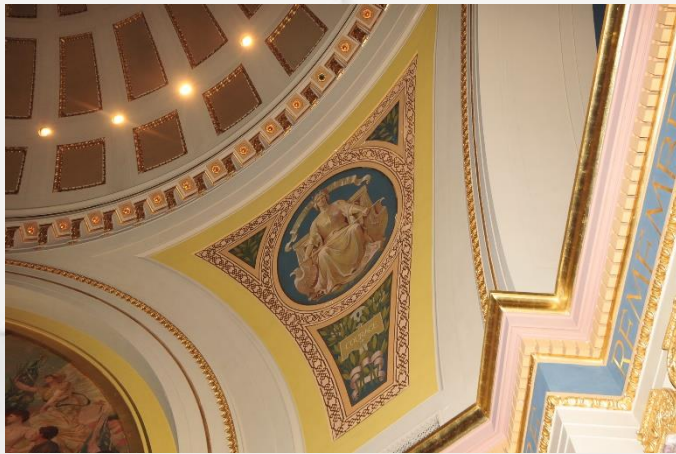
North Hall ceiling stencil decoration currently painted over



Current Ground Floor, North Hall ceiling (no decorative stenciling visible)

Additional Decorative Painting - \$728,665

- Supreme Court – Touch up gilding.
- Supreme Court Conference Room – Replicate historic Greek key ceiling border.
- Senate Chamber – Burnish gilding. Touch up pendants.
- Senate Retiring Room – Fix damaged decorative paint areas.



Senate Chamber gilding



Figure 46. Historic view of Supreme Court Conference Room, circa 1905

Greek Key border

Additional Decorative Painting

- Governor's Office – Gilding at ceiling. Replicate historic finishes.
- Governor's Conference Room - Gilding at ceiling. Replicate historic finishes.
- House Retiring Room – Re-gild ceiling decoration.
- House Chamber – Re-gild letters above dias.
- Ground Floor Corridors – paint decorative stripe pattern with original colors.
- G18 – Re-paint ceiling medallion in historic colors.



Governor's Office ceiling



House Retiring Room ceiling



G18 ceiling medallion

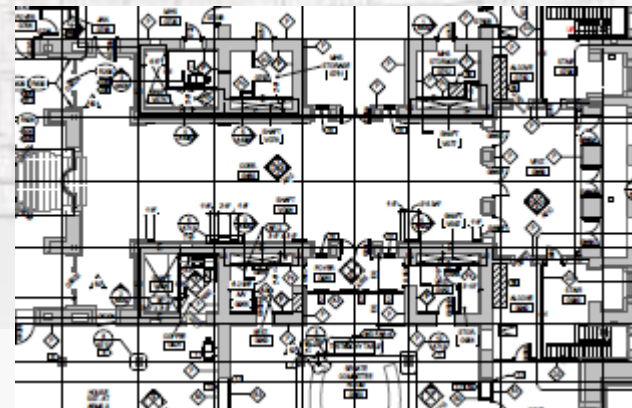
East Wing, Great Hall Stone Floor - \$257,000

Background

- Original historic flooring was wood on sleepers.
- Previous project removed wood flooring and installed carpet on a concrete topping level with adjacent stone

Recommendation

- Remove concrete topping and install a new stone floor level with adjacent stone flooring



Security Improvements - \$6.158 million

Background

- Security Report made recommendations related to enhanced security for the Capitol Complex in general and the Capitol Grounds specifically.

Recommendation

- Complete all work at the Capitol work in 2017
- Integrate site security with other exterior site design work to minimize potential future rework at the Capitol Terrace, Aurora Avenue and Lot O

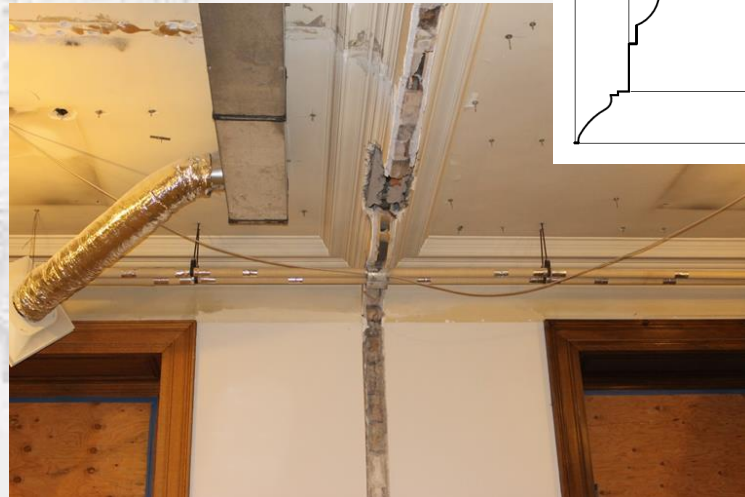
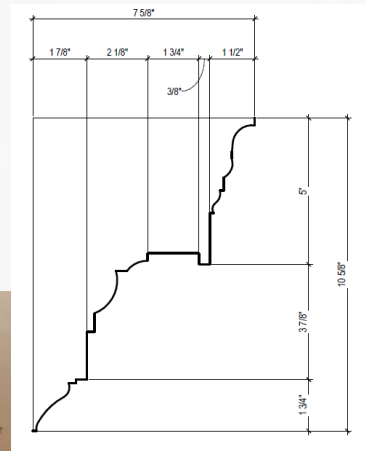
Cove Molding - \$150,000

Background

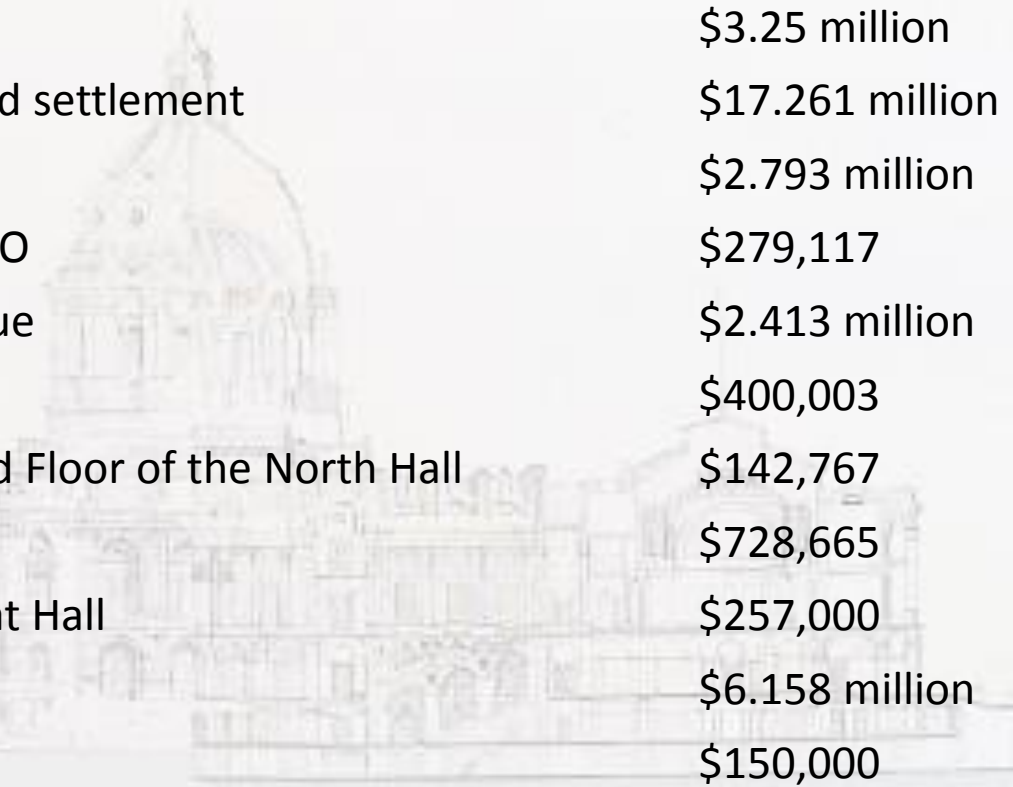
- Demolition uncovered badly damaged existing plaster crown moldings in many first floor spaces.

Recommendation

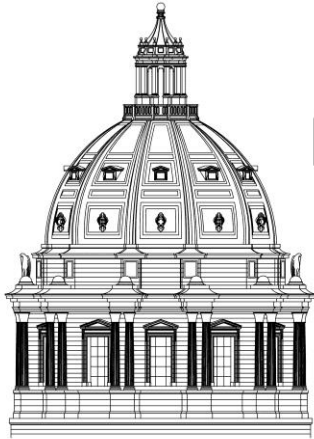
- Maximize ceiling height with HVAC and sprinkler piping concealed above new gypsum board ceilings
- Install new glass fiber reinforced gypsum (GFR) moldings in similar profile to the original plaster moldings.



Summary



• Conservation of Fine Art	\$3.25 million
• Addressing water intrusion and settlement	\$17.261 million
• Reconstruction of South Stairs	\$2.793 million
• Enhanced landscaping for Lot O	\$279,117
• Modifications to Aurora Avenue	\$2.413 million
• Reopening of South Loggia	\$400,003
• Decorative painting on Ground Floor of the North Hall	\$142,767
• Additional decorative painting	\$728,665
• Stone floor for East Wing Great Hall	\$257,000
• Security improvements	\$6.158 million
• Cove molding	\$150,000
TOTAL COST	\$33.831 million



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